CLAIMS

    1. A method for estimating a signal to interference ratio (SIR) of a signal transmitted from a first unit and
5   to a remotely located second unit in a Wideband Code Division Multiple Access (WCDMA) wireless communication system, said signal being transmitted through an air interface and comprising pilot and data symbols, **characterised** by the steps of
10   verifying (5.40) a transmitted Transmit Power Control (TPC) command, and
    giving a SIR estimation (5.50) depending on the result of said TPC verification (5.40).

15   2. A method according to claim 1, further **characterised** in that said TPC verification (5.40) step comprises the step of
    weighing said pilot and data symbols.

20   3. A method according to claim 1, further **characterised** by encoding said data symbols using space-time transit diversity (STTD).

    4. A method according to claim 1, further
25 **characterised** in that interference is estimated from said pilot symbols (5.20).

    5. A method according to claim 4, further **characterised** in that the estimated interference is
30 filtered.

    6. A method according to claim 1, **characterised** in that the first unit is a base station and the second unit is a mobile unit.

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7. A method according to claim 1, **characterised** in that the first unit is a mobile unit and the second unit is a base station.

5   8. A device (100) for estimating a signal to interference ratio (SIR) of a signal transmitted from a first unit and to a remotely located second unit in a Wideband Code Division Multiple Access (WCDMA) wireless communication system, said signal being transmitted through
10   an air interface, **characterised** in that said device comprises
           a means for Transmit Power Control (TPC) verification (40) having an output signal,
           a means for SIR estimation (50), and that
15   the SIR estimation depends on said output of said TPC verification unit.

           9. A device (100) according to claim 8, further **characterised** in that said TPC verification unit weighs
20   said pilot and data symbols.

           10. A device (100) according to claim 8, further **characterised** in that said data symbols are encoded using space-time transit diversity (STTD).
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           11. A device (100) according to claim 8, further **characterised** by a means for estimating interference from said pilot symbols.

30   12. A device (100) according to claim 11, further **characterised** by a filter for filtering said estimated interference.

13. A device (100) according to claim 8, further
characterised in that the first unit is a base station and
the second unit is a mobile unit.

5   14. A device (100) according to claim 8, further
characterised in that the first unit is a mobile unit and
the second unit is a base station.

15. A computer readable medium having a plurality of
10   computer-executable instructions for performing the method
according to claim 1, **characterised** by
        a program module for TPC verification giving
instructions to a computer, and
        a program module for SIR estimation giving
15   instructions to a computer, depending on the Transmit Power
Control (TPC) verification .